

System 100

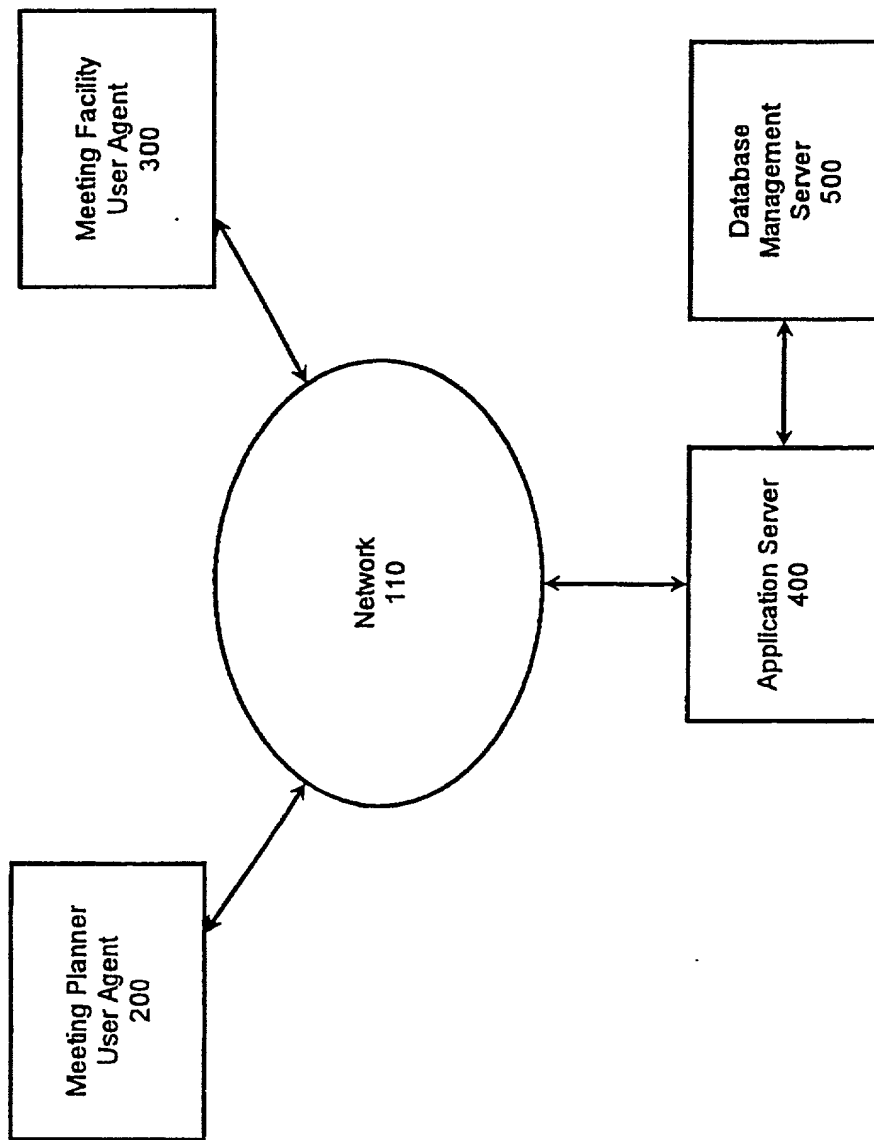


Figure 1

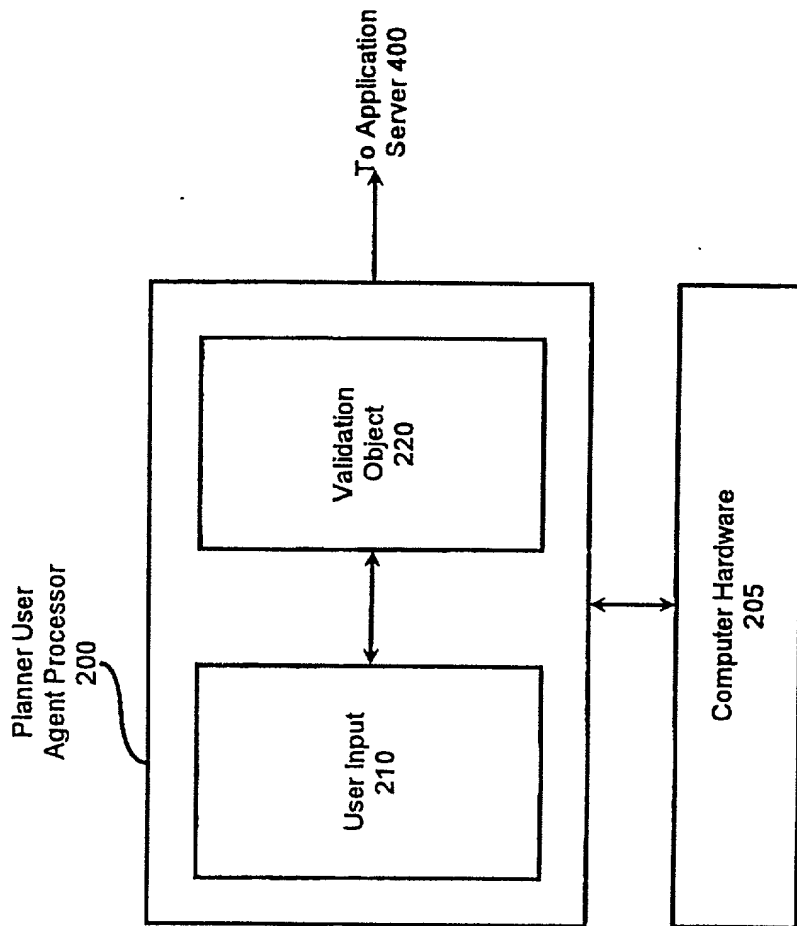


Figure 2

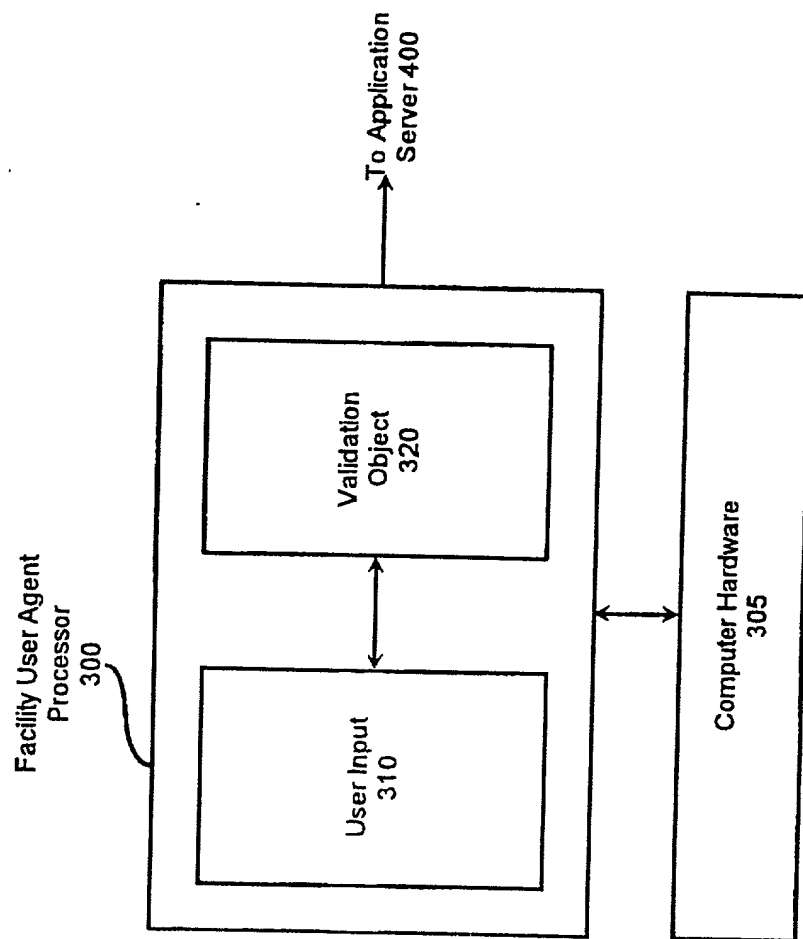


Figure 3

Application Server

400

Random
Access
Memory
420

Global Object
430

Local Object
440

To Planner and Facility
User Agents 470

Script Processor
410

Search Object
450

To Database Management
Server 500

File Directory
460

Computer Hardware
405

Figure 4

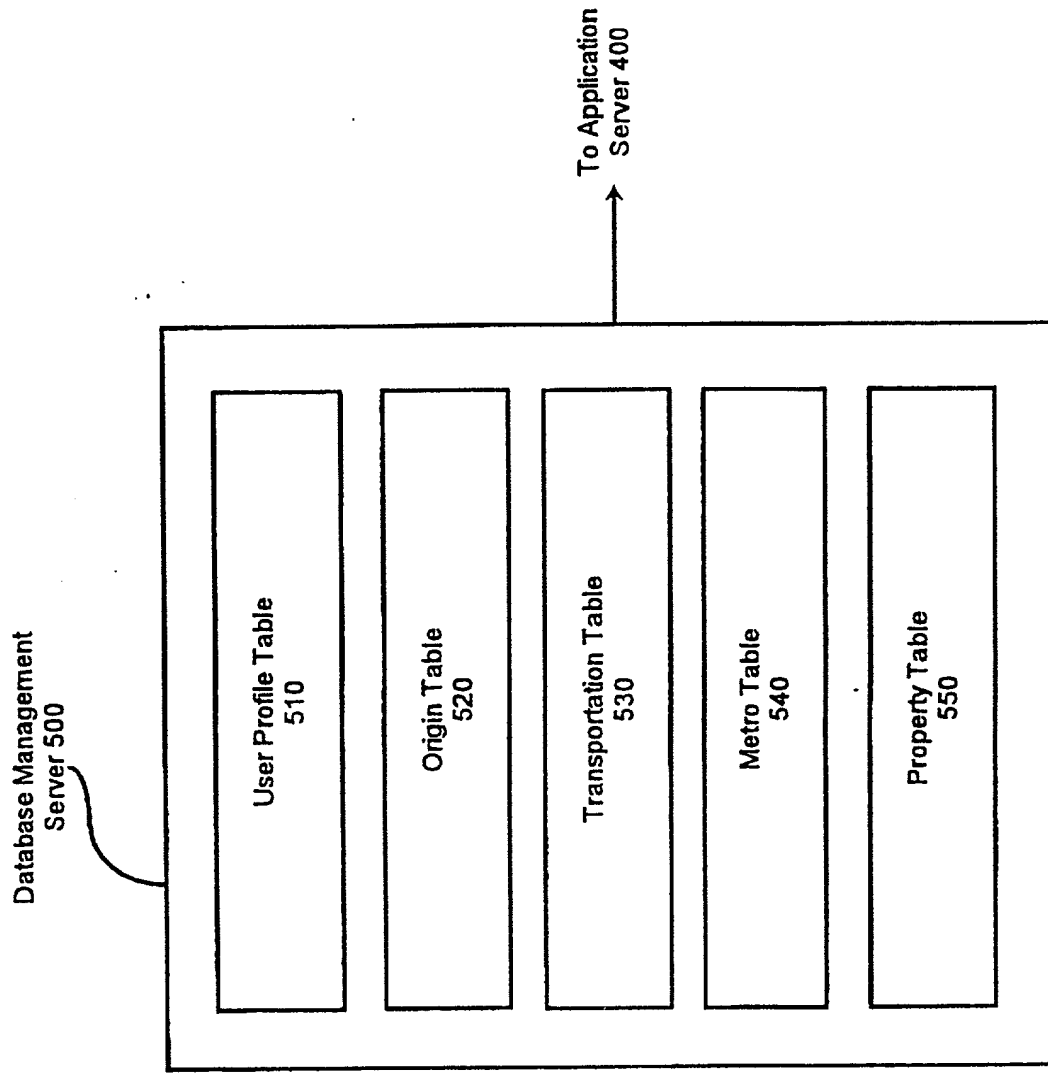


Figure 5

Method Calculate()

Parameters: PropertyArrays, ConferenceArray, AttendeeArray, MealArray,
TransportationArrays, OriginArrays (OfficeArray & AirportArray), MetroArray,
and UserProfile

For each property in PropertyArrays

Store transportation cost between property and each airport it serves in AirTranArray

Store filtered values from PropertyArrays to FilterValue

Store guestroom rate + applicable taxes from PropertyArray to LodgeCost

Store effective dates to PropStart and PropEnd

Store quality from PropertyArrays to Quality

For each valid meal cost in MealArray where

$(\text{EffectStart} = \text{Max}(\text{PropStart}, \text{MealStart})) < (\text{EffectEnd} = \text{Min}(\text{PropEnd}, \text{MealEnd}))$

Store individual meal cost for property to MealCost

$\text{MealCost} = \text{Breakfast} + \text{Lunch} + \text{Dinner} + \text{Incidentals} - \text{Complimentary Meals}$

If $\text{MealCost} + \text{LodgeCost}$ for an attendee $> \text{MaxCost}$ from UserProfile

Skip to next meal cost

EndIf

Call GetDist

Store total meal cost to TotalMeal

$\text{TotalMeal} = (\text{OnTime} \times \text{MealCost} \times (\text{NumDays} - ((1 - \text{FirstDay}\%) + (1 - \text{LastDay}\%)))) + ((\text{Visitors} - \text{OnTime}) \times \text{MealCost} \times ((\text{NumDays} + 1) - ((1 - \text{FirstDay}\%) + (1 - \text{LastDay}\%)))) + (\text{Local} \times \text{NumDays} \times \text{LocalMeal}\%)$

Store total lodging cost to TotalLodge

$\text{TotalLodge} = (\text{OnTime} \times (\text{NumDays} - 1) \times \text{LodgeCost}) + ((\text{Visitors} - \text{OnTime}) \times \text{NumDays} \times \text{LodgeCost})$

For each office in OfficeArray where distance to Hotel $< \text{MaxOffDist}$ in MetroArray

Store local transportation cost to LocalTrans

LocalTrans = 0 if free shuttle from Hotel to Office is available, otherwise

$\text{LocalTrans} = \text{Min}((\text{Distance} \times \text{Taxi}), \text{AltOffTrans})$

Call TransCost Method and store result in TotalTrans

Store all-inclusive meeting cost to TotalCost

$\text{TotalCost} = (1 + \text{MiscExpense}) \text{ from UserProfile} \times (\text{TotalTrans} + \text{TotalMeal} + \text{TotalLodge})$

Store current results to OfficeResultsArray

This includes HotelID, OfficeID, RateID, MealID, TotalCost, Quality, FilterValue,
Visitors, OnTime, EffectStart, EffectEnd

EndFor

Store 0 to LocalTrans

Call TransCost Method and store result in TotalTrans

With least expensive conference room in ConferenceArray which meets meeting
requirements where $(\text{TotalStart} = \text{Max}(\text{EffectStart}, \text{ConfStart})) < (\text{TotalEnd} = \text{Min}(\text{EffectEnd}, \text{ConfEnd}))$

Store conference room cost to ConfCost

$\text{ConfCost} = (\text{ConfRate} \times \text{NumDays})$

Store all-inclusive meeting cost to TotalCost

$\text{TotalCost} = (1 + \text{MiscExpense}) \text{ from UserProfile} \times (\text{TotalTrans} + \text{TotalMeal} + \text{TotalLodge} + \text{ConfCost})$

Fig. 6A

Store current results to HotelResultsArray
This includes HotelID, RateID, MealID, ConfID, TotalCost, Quality, FilterValue,
Visitors, OnTime, TotalStart, TotalEnd

EndWith

EndFor

EndFor

EndMethod (Return OfficeResultsArray, HotelResultsArray)

Method TransCost()

Parameters: PropLatitude from PropertyArrays, PropLongitude from PropertyArrays
AirTranArray, AttendeeArray, TransportationArrays (AirfareArray), MetroArray
UserProfile, and LocalTrans

For each attendee group in AttendeeArray

Store number of attendees in each group to NumAttendees

If Distance > maximum driving distance

Increment TotalAir with total airfare cost

Take min airfare between all airport pairs from origin to destination:

$$\text{Min}((\text{OneWayAir} + \text{OriginTrans} + \text{DestTrans}) + (\text{LocalTrans} \times \text{NumDays})) \times (\text{NumAttendees} \times 2)$$

Else

If Distance > LocalDist

Store distance from hotel to office to OffDist

Increment TotalDrive with DriveCost

$$\text{DriveCost} = ((\text{Distance} + (\text{OffDist} \times \text{NumDays})) \times \text{MileReimburse}) \times (\text{NumAttendees} \times 2)$$

Else

Increment TotalDrive with LocalDrive

$$\text{LocalDrive} = ((\text{Distance} \times \text{MileReimburse}) + \text{LocalTrans}) \times (\text{NumAttendees} \times \text{NumDays} \times 2)$$

EndIf

EndIf

EndFor

Store TotalAir + TotalDrive to TotalTrans

EndMethod (Return TotalTrans)

Method GetDist()

Parameters: AttendeeArray, PropLatitude, PropLongitude, OriginArrays

For each attendee group in AttendeeArray

Store distance between origin point and property to Distance in AttendeeArray

Distance can be calculated using latitude and longitude of the property and the origin

If Distance < LocalDist

Increment Local with number of attendees in attendee group

Else

Increment Visitors with number of attendees in attendee group

If Distance < ExtraDayDist

Increment OnTime with number of attendees in attendee group

Else

Increment ExtraDay with number of attendees in attendee group

EndIf

EndIf

EndFor

Fig. 6B

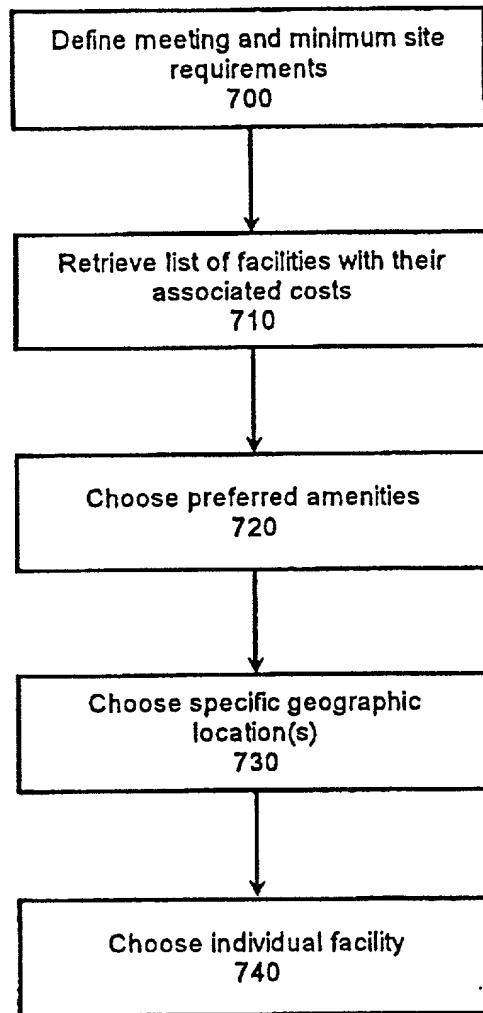


Figure 7

0994883-112000

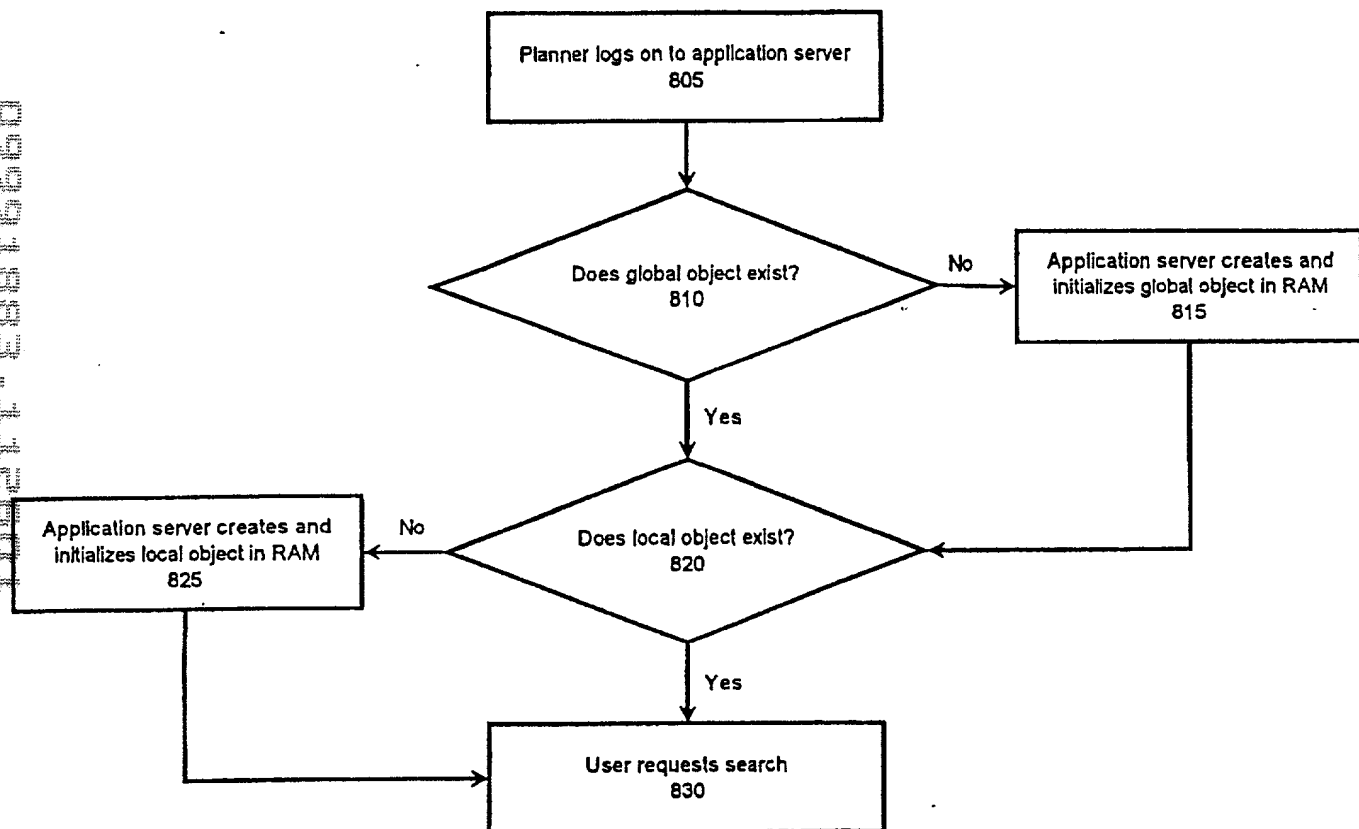


Figure 8

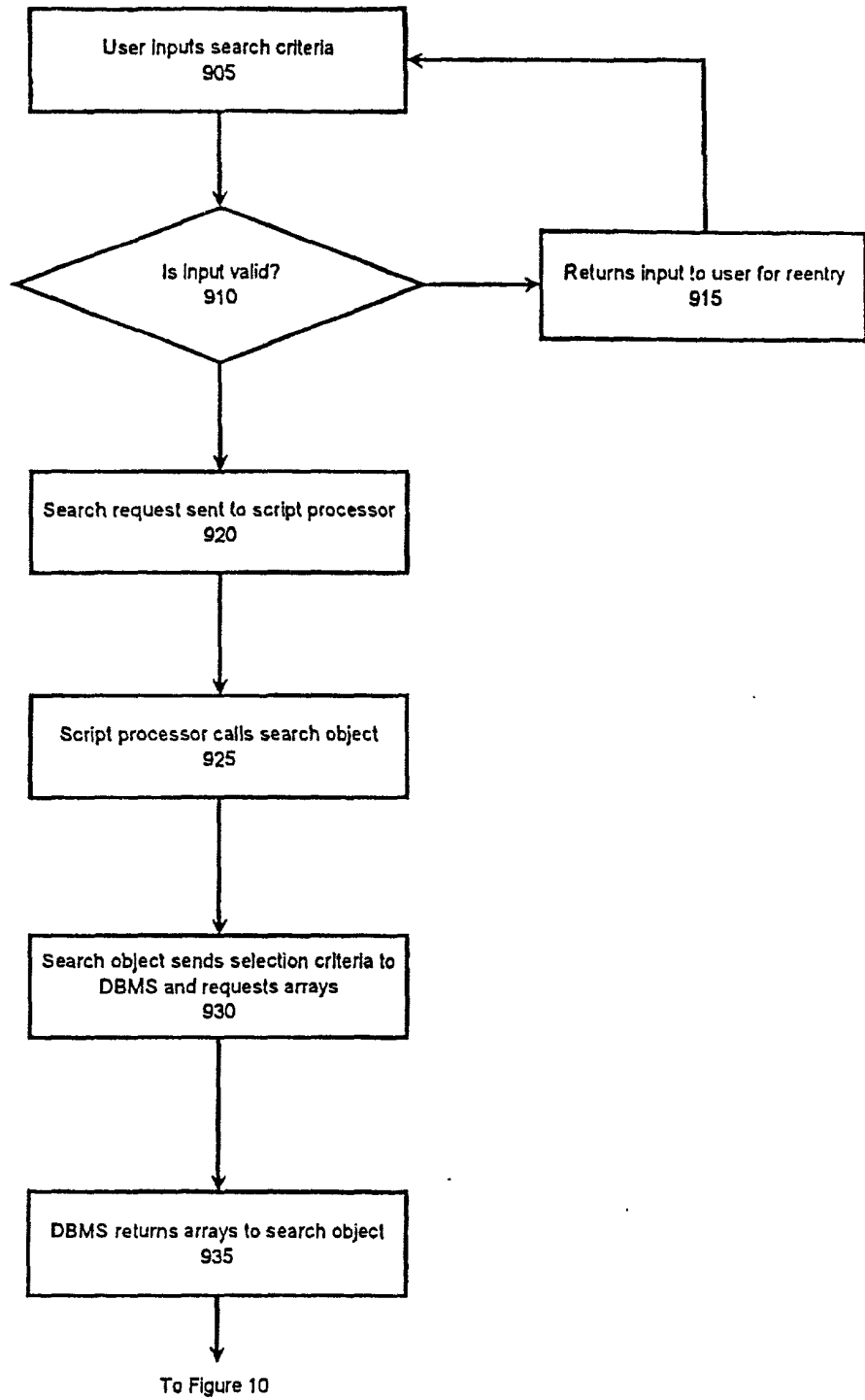


Figure 9

09931003 41604

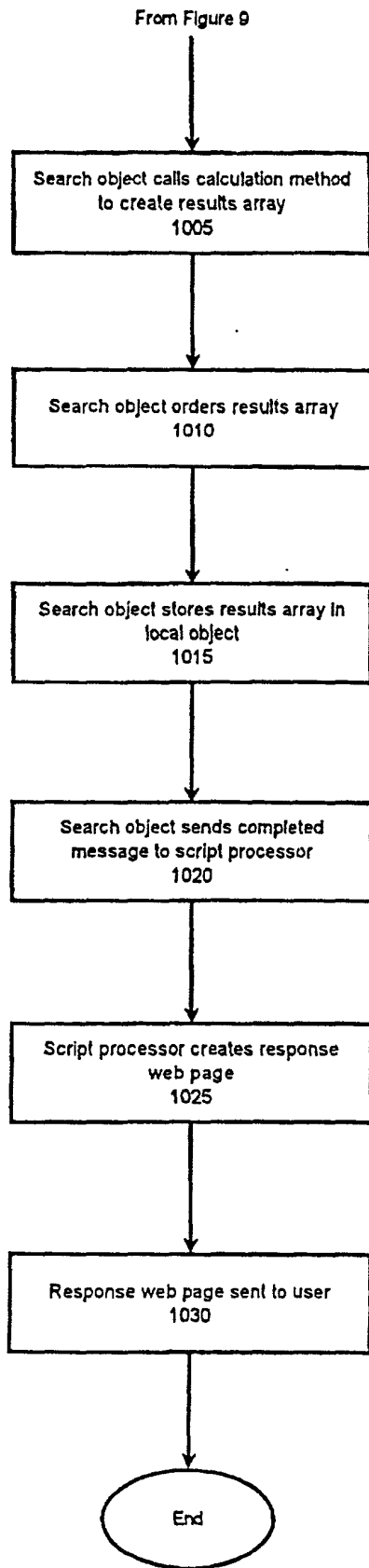


Figure 10

1100



Fig. 11

Meeting Dates

3/17/1999
<input checked="" type="checkbox"/>
3/21/1999
4/3/1999
<input checked="" type="checkbox"/>

January 1999

1	2				
3	4	5	6	7	8
9	10	11	12	13	14
15	16	17	18	19	20
21	22	23	24	25	26
27	28	29	30	31	

February 1999

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28		

March 1999

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

April 1999

1	2	3			
4	5	6	7	8	9
10	11	12	13	14	15
16	17	18	19	20	21
22	23	24	25	26	27
28	29	30			

Fig. 12

Search Results - For Selection Report

Preferred Date 3/17/99

Sorted By

☒ Lowest Cost (3+ stars)
☐ Highest Quality (within Per Diem)

Meetings Held At

☒ Hotel/Conference Facility
☐ Office/Military Base

Hotels/Conference Facilities ordered by Lowest Cost					
Select	Property - Location	Quality Rating	Special Rate Dates	Estimated Total Cost*	
<input type="checkbox"/> 10.	Tampa Airport Hilton at Metrocenter - Tampa, FL	3	Jan 1 - Apr 30	\$5,084	
<input type="checkbox"/> 18.	Orlando Marriott - Orlando, FL	3		\$5,518	
<input type="checkbox"/> 20.	Comfort Inn & Suites - Miami, FL	3	Jan 1 - Apr 30	\$5,567	
<input type="checkbox"/> 22.	Sheraton University Inn - Orlando, FL	3		\$5,626	
<input type="checkbox"/> 25.	Quality Inn - Naples, FL	3	Jan 1 - Apr 30	\$5,674	
<input type="checkbox"/> 40.	Best Western McCarran House Inn - Sparks, NV	3		\$6,486	
<input type="checkbox"/> 64.	Continental Plaza Los Angeles Airport - Los Angeles, CA	3		\$6,930	
<input type="checkbox"/> 72.	Fleming Resort - Santa Rosa, CA	3		\$7,048	
<input type="checkbox"/> 91.	Embassy Suites - Phoenix, AZ	3	Jan 1 - Apr 30	\$7,205	
<input type="checkbox"/> 103.	Holiday Inn - Oklahoma City, OK	3		\$7,317	
<input type="checkbox"/> 106.	Holiday Inn - Phoenix, AZ	3	Jan 1 - Apr 30	\$7,346	

1403 1402

Fig. 14